

Name: _____

Agricultural Science II**Directions:**

Evaluate the student by checking the appropriate number or letter to indicate the degree of competency. The rating for each task should reflect **employability readiness** rather than the grades given in class.

Rating Scale:

- 3 Mastered** – can work independently with no supervision
2 Requires Supervision – can perform job completely with limited supervision
1 Not Mastered – requires instruction and close supervision
N No Exposure – no experience or knowledge in this area

NOTE: The code in parentheses is the competency identification number used in computerized management systems.

NOTE: All competencies involving safety require a Number 3 rating.

3	2	1	N	A. Careers and Personal Development II	Notes:
				1. Describe the steps which should be taken in choosing a career and planning for occupational entry and advancement (A001)	
				2. Develop a plan for finding a job (A002)	
				3. Describe how to apply and interview for a job (A003)	
				4. Describe the characteristics needed to develop a desirable personality (A004)	
				5. Describe the importance and process of developing human relationship skills (A005)	
				Other:	

3	2	1	N	B. Leadership II (Leadership Duty B)	Notes:
				1. Describe the importance of good decision-making skills (B001)	
				2. Describe the responsibilities of members of an organization (B002)	
				3. Describe the major parts of the FFA Program of Activities (B003)	
				4. Describe the techniques involved in communicating in groups (B004)	
				5. Prepare and deliver a presentation (B005)	
				6. Demonstrate the use of parliamentary procedure in a meeting (B006)	
				Other:	

3	2	1	N	C. Analyzing the SAE Program (SAE Duty C)	Notes:
				1. Complete summary forms in Missouri Agricultural Record Book for Secondary Students (C001)	
				2. Complete the analysis forms in the Missouri Agricultural Record Book for Secondary Students (C002)	
				3. Analyze and evaluate the SAE program (C003)	
				4. Identify awards that may be earned as a result of the SAE program (C004)	
				5. Determine if and when the Missouri Farm Business Record Book should be used (C005)	
				Other:	

3	2	1	N	D. Soils	Notes:
				1.Explain the importance of soil (D001)	
				2. Describe how soils are formed (D009)	
				3. Explain the importance of soil color (D010)	
				4. Explain the importance of soil texture (D011)	
				5. Explain the importance of soil structure (D012)	
				6. Describe a soil profile (D013)	
				7. Explain how plants exchange anions for cations (D014)	
				8. Identify what plants get from the soil to be healthy and what gives maximum yields (D015)	
				9. Prepare a soil sample for analysis (D002)	
				10. Evaluate the effects of soil on water (D016)	
				11. Describe the various site characteristics (D017)	
				12. Identify ways to conserve and manage the soil (D018)	
				13. Describe the environmental impact of soil and water management (D019)	
				Other:	

3	2	1	N	E. Plant Science	Notes:
				1. Identify the importance of plants (R001)	
				2. List and describe methods to classify plants (R002)	
				3. Describe factors that affect plant growth and development (R003)	
				4. Describe how pests affect plant growth (R004)	
				5. Identify the steps in germination of monocot and dicot seeds (R005)	
				6. Describe basic plant processes (R006)	
				7. Describe how plants reproduce sexually and asexually (R008)	
				8. Describe how genetics influences plant growth (R008)	
				Other:	

3	2	1	N	F. Crop Science	Notes:
				1. Describe the economic importance of crop production (S001)	
				2. Identify how crops are used (S002)	
				3. Identify common plants and weeds in Missouri (S003)	
				4. Identify characteristics of quality seed (S004)	

				5. Explain the requirements for establishing a crop stand (S005)	
				6. Describe good crop production practices (S006)	
				7. Explain factors related to harvesting and storing quality grain (S007)	
				8. Describe factors related to harvesting and storing quality forages (S008)	
				9. Describe methods of plant pest control (S009)	
				Other:	

3	2	1	N	G. Entomology	Notes:
				1. Discuss the significance of entomology (Q001)	
				2. Prepare an insect collection (Q002)	
				3. Describe the procedure for classifying insects to order (Q003)	
				4. Describe methods of pest control (Q004)	
				5. Describe the factors in the selection and application of insecticides (Q005)	
				6. Identify safety guidelines for insecticide use (Q006)	
				7. Outline an IPM plan (Q007)	
				Other:	

3	2	1	N	H. Small Grains	Notes:
				1. Describe the soil and climatic adaptations and the uses of small grains (G001)	
				2. Select the variety and types of small grains that are best suited to the local area (G002)	
				3. Describe the practices necessary to establish a satisfactory stand of small grains (G003)	
				4. Describe the factors involved in controlling insects in small grains (G004)	
				5. Describe the factors involved in controlling diseases of small grains (G005)	
				6. Determine the most profitable practices and methods of harvesting and storing small grains (G006)	
				Other:	

3	2	1	N	I. Fruit and Vegetable Production (Horticulture)	Notes:
				1. Describe the preparations necessary for fruit and vegetable production (H001)	
				2. Analyze principles of vegetable crop transplant production (H002)	
				3. Identify characteristics and production practices for warm season solanaceous crops (H003)	
				4. Identify techniques for growing beans, peas, and sweet corn (H004)	
				5. Identify techniques for growing cole crops and cucurbits (H005)	
				6. Identify techniques for cultivating apples and peaches (H006)	

				7. Identify techniques for producing strawberries (H007)	
				8. Identify techniques for growing selected bramble fruits (H008)	
				9. Identify techniques for cultivating blueberries (H009)	
				10. Identify techniques for growing grapes (H010)	
				11. Identify approaches for the direct marketing of fresh fruits and vegetables (H011)	
				Other:	

3	2	1	N	J. Forestry	Notes:
				1. Identify careers and benefits form Missouri forest resources (J001)	
				2. Classify Missouri trees by use and grade (J002)	
				3. Order and plant forest trees (J003)	
				4. Describe the safe use of forestry tools (J004)	
				5. Measure standing trees, logs, and stacks of cordwood (J005)	
				6. Analyze how Timber Stand Improvement (T.S.I.) principles can improve forest production (J006)	
				7. Identify factors to consider in growing and marketing Christmas trees (J007)	
				8. Describe how to produce and market walnut timber (J008)	
				Other:	

3	2	1	N	K. Power Tools	Notes:
				1. Analyze the uses and safety procedures of common power tools used in woodworking	
				2. Analyze the uses and safety procedures of common power tools used in metalworking	
				Other:	

3	2	1	N	L. Arc Welding	Notes:
				1. Identify basic safety and maintenance procedures for arc welding	
				2. Describe the procedures used to control distortion during arc welding	
				3. Describe the factors in selecting and maintaining electrodes and safety lenses	
				4. Analyze the characteristics of different metals, including their ability to be welded	
				5. Demonstrate the procedures for making out-of-position welds using a shielded metal arc welder	
				Other:	

3	2	1	N	M. Oxyacetylene Welding	Notes:
				1. Identify the basic safety and maintenance procedures for oxyacetylene welding	
				2. Weld with and without filler rods using an oxyacetylene outfit	
				3. Braze on mild steel using an oxyacetylene outfit	
				Other:	

3	2	1	N	N. Tool Sharpening and Reconditioning	Notes:
				1. Identify the safety procedures for tool sharpening and reconditioning	
				2. Dress a grinding wheel	
				3. Sharpen a twist drill	
				4. Sharpen a lawn mower blade	
				5. Maintain a chain saw chain	
				Other:	

3	2	1	N	O. Cold Metal Work	Notes:
				1. Lay out cold metal	
				2. Shape cold metal	
				3. Fasten cold metal	
				Other:	

3	2	1	N	P. Material Selection, Plan Reading, and Interpretation	Notes:
				1. Describe how to choose and plan a project	
				2. Interpret a working drawing	
				3. Prepare a working drawing	
				4. Identify common building supplies using standard terms and sizes	
				Other:	

3	2	1	N	Q. Spray Painting and Finishing	Notes:
				1. Identify the safety procedures for spray painting and finishing	
				2. Demonstrate the procedures for spray painting and finishing	
				3. Maintain spray painting and finishing equipment	
				Other:	

INTRODUCTION TO GRASSLAND MANAGEMENT

3	2	1	N	R. Grassland and Grassland Plants	Notes:
				1. Identify different types of grasslands and explain factors that create them (T001)	
				2. Identify plant classifications found in grasslands (T002)	
				3. Recognize the characteristics of grassland plants that are used in plant identification (T003)	
				4. Appraise the current conditions of the grassland (T004)	
				Other:	

3	2	1	N	S. Soil Management	Notes:
				1. Interpret soil test information (T005)	
				2. Interpret soil survey manuals and recommend plants for a soil type (T006)	
				Other:	

3	2	1	N	T. Grassland Management Practices	Notes:
				1. Analyze the nutrient needs of livestock (T007)	
				2. Determine the optimal grazing methods for a grassland (T008)	
				3. Determine methods for harvesting and storing forage crops (T009)	
				4. Develop a better understanding of the management practices needed to manage both livestock and wildlife on grasslands (T010)	
				5. Develop a grassland management plan (T011)	
				Other:	